UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/079,559	02/22/2002	Hamid R. Mehrvar	13528-174US	6934

		EXAMINER
7590 11/16/2006		HALIYUR, VENKATESH N

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ART UNIT	PAPER NUMBER
2616	

DATE MAILED: 11/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	10/079,559	MEHRVAR ET AL.
	Examiner	**Art Unit**	
	Venkatesh Haliyur	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>06 September 2006</u>.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-28 (claims 2,10,19,24 are cancelled)* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-9,11-18,20-23,25-28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

1.   A request for continued examination under 37 CFR 1.114, including the fee set

forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this

application is eligible for continued examination under 37 CFR 1.114, and the fee set

forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action

has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on

09/06/2006 has been entered.

2.   Claims 1 – 28 are pending in the application. Claims 2,10,19,24 are canceled.

Claim Rejections - 35 USC § 103(a)

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

4.   Claims 1,3-9,11-18,20-23,25-28 is rejected under 35 U.S.C. 102(e) as

anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Aukia et al.

[US Pat: 6,594,268].

Regarding claims 1,18, Aukia et al. disclosed in their invention of "Adaptive

routing System and Method for QoS Packet Network", a method for conveying **(routing)**

both high and low latency **(delay/QoS)** traffic streams across a switching fabric with at

least two diverse paths **(multi-paths, col 8, lines 62-67)** mapped through the switch

fabric **(item 206 of Fig 2)** from a common input interface **(input link interface that**

supports one or more links, item 204 of Fig 2) to a common output interface **(output**

link interface that supports one or more line cards, item 207 of Fig 2), each path

being optimized to satisfy respective different latency requirements **(QoS requirement)**

and a latency classifier **(item 203 of Fig 2)** adapted to route each traffic stream to a

selected path optimized to satisfy latency requirements **(col 4, lines 55-67, col 5, lines**

1-18 & lines 59-67) most closely matching a respective latency requirement of the

traffic stream **(multi-paths having different classes assigned, col 11, lines 1-11)**; at

least two prioritization classifier **(col 10, lines 3-23)** is associated with one of the at

least two diverse paths **(col 9, lines 60-66, col 10,lines 3-23)**, each prioritization

classifier adapted to control a priority of the traffic stream being conveyed through

the respective path **(col 11, lines 12-39)**: and wherein the tratffic streams within each

of the at least two diverse paths are processed independently **(concurrently**

processed at the packet classifier) [Figs 1-4, col 5, lines 59-67, cols 6-13, lines 1-

67, col 14, lines 1-44].

Regarding claims 3-4, Aukia et al. disclosed that each path **(source –**

destination pairs) is mapped through respective different physical infrastructure of the

switch fabric and two or more paths **(multi-paths)** are mapped through a common

physical infrastructure capable of supporting the path optimized to satisfy the most

demanding latency **(QoS)** requirements **(col 12, lines 55-67, col 13, lines 1-8) [Fig 4,**

col 4, lines 62-67,col 5, lines 1-8, col 9,lines 1-5].

Regarding claims 5-6,21, Aukia et al. disclosed that the classifier is adapted to

selectively couple each one of a plurality of upstream channels of the network to a

selected one of the paths **(source – destination pairs)**, such that a respective traffic

stream of a communications session mapped through one of the upstream channels is

automatically routed to the selected path **[col 5, lines 1-8, col 12, lines 55-67, col 13,**

lines 1-8].

Regarding claims 7,8,12,23, Aukia et al. disclosed that packet classifier extracts

(collect) network management and critical mission message **(control message)**

content from each traffic stream **(col 6,lines 20-67,col 7, lines 1-8)** and route the

extracted network management and critical mission messages content to a different

path **(signaling or control path)** from that of traffic stream **(traffic path, col 10,lines**

24-67, col 11, lines 1-11) [Figs 2-5, col 13, lines 32-67, col 14, lines 1-60].

Regarding claims 9,11,20, Aukia et al. disclosed that each   path   comprises   a

respective input queue adapted to buffer data **(item 205 of Fig 2)** of each traffic stream

being conveyed through the path and the input queue comprises at least two parallel

buffers, each buffer being adapted to store data of at least one traffic stream being

conveyed through the path **(col 10, lines 3-67)**; and a scheduler **(items 201 & 202 of**

Fig 2) for controlling transmission of data from each buffer through the path **(col 11,**

lines 1-67) [Figs 2-5, col 12, lines 1-67, col 13, lines 1-55]

Regarding claims 13-14,26, Aukia et al. disclosed that prioritization classifier is adapted to route each traffic stream to a selected one of the buffers based on a content of a predetermined field **(TOS field)** of the respective overhead **(header information)** of each traffic stream and the predetermined comprises a respective K-byte field of each SONET traffic stream conveyed through the path **[col 6, lines 7-18, col 17, lines 64-67,col 18,lines 1-67, col 19,lines 1-5]**.

Regarding claims 15-17, 27-28, Aukia et al. disclosed that the predetermined field **(packet header)** comprises a respective DSCP **(differentiated services)** field of each Internet Protocol (IP) traffic stream being conveyed through the path **(cols 1-4, lines 1-67)** and the step of separating, routing and round robin scheduling **(fairness based on QoS)** responsive **(TCP)** and non-responsive **(IP)** traffic streams at a respective egress **(item 207 of Fig 2)** end of each path **[Fig 2, col 10, lines 48-62]**.

Regarding claim 22, Aukia et al. disclosed that the selected path is determined at a time of set-up of the communications session **(initial provisioning)** **[col 5, lines 2-17, col 8, lines 38-67]**.

Regarding claim 25, Aukia et al disclosed routing each traffic stream to a selected one of at least two parallel buffers, each buffer being adapted to store data of at least one traffic stream being conveyed through the path **(col 12, lines 38-67)**, the selected buffer being selected based on a content of a predetermined field of the respective overhead of each traffic stream and controlling transmission of data from each buffer through the path **(col 13, lines 1-32)** **[Figs 2-4, col 3, lines 21-28, col 10, lines 3-24]**.

Conclusion

5.   Any inquiry concerning this communication or earlier communications should be directed to the attention to Venkatesh Haliyur whose phone number is 571-272-8616. The examiner can normally be reached on Monday-Friday from 9:00AM to 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached @ (571)-272-3139. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is (571)-272-2600 or fax to 571-273-8300.

6.   Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197(toll-free).

Venkatesh Haliyur

Patent Examiner

RICKY Q. NGO
SUPERVISORY PATENT EXAMINER